

*A3*  
*Cont*

separation which forms a discontinuous polyethylene phase expansion. Upon meting, conducting polymer composite materials have been realized in co-polymer blends too, such as polyethylene-polystyrene copolymers wherein conducting fillers such as carbon black can bring about electrical percolation at doping levels below 3 wt%. As a result, a co-polymer which otherwise shows a resistance of the order of MOhms, shows below 1000Ohms when doped with conducting filler such as carbon black. This aspect in particular is used in sensor technology.

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Please amend the paragraph starting on page 4 line 27 to read as follows:

*A4*

Accordingly the present invention relates to a magneto-resistive  $\text{CrO}_2$  polymer composite blend that can be made into a film or artefact for use in magnetic storage devices such as audio and video tapes, magnetic read heads, magnetic field probes or current voltage sensors in electrical devices, comprising :

88% - 93% w/w of low density polyethylene;  
5 - 8% w/w of  $\text{CrO}_2$ ; and  
2 - 4 % w/w carbon black.

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Please add a new paragraph after page 7 line21:

*A5*

Useful compositions include those which melt at 95°C under a pressure of 5kPa.

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On page 8 after the Table please add the following paragraph:

*A6*

The additive, typically carbon black, is conveniently used in the form of a powder.

#### IN THE CLAIMS

Please amend claim 1 to read as follows:

*G7*

1(Amended) A magneto-resistive  $\text{CrO}_2$  polymer composite film for use in magnetic storage devices comprising :

88% - 93% w/w of low density polyethylene;  
5 - 8% w/w of  $\text{CrO}_2$ ; and